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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/517,682

07/05/2005

Young-Min Oh

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7590

07/27/2006

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EXAMINER

ALAM, FAYYAZ

ART UNIT

PAPER NUMBER

2631

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/517,682

Applicant(s)

OH ET AL.

Examiner

Fayyaz Alam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 December 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/7/05 & 12/10/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement submitted on 11/7/20005 and 12/10/2004 been considered by the Examiner and made of record in the application file.

Claim Objections

3. **Claim 1** is objected to because of the following informalities: On **line 16** delete "may be" and on **line 21** delete "may". Prior art will be applied in accordance with this change. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 - 3, 5 - 8, 10 - 11, and 13 rejected under 35 U.S.C. 102(b) as being anticipated by **Rees et al. (UK Patent Application # 2,272,604)**.

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Consider **claims 1 and 10** (method claim rejected by way of device claim), Rees et al. disclose a base station with a diagnostic subsystem (read as receive sensitivity measuring device; see figures 1, 2, and 5) that includes controller (20) coupled to controller (31) (read as terminal) for transmitting a test call (read as test signal; see page 4, line 38 - page 5, line 1) coupled to the receive antenna (16) (read as receive sensitivity measuring path) in order to measure the VSWR (read as receive sensitivity) of a communication system that includes a transmit/receive antenna (202) (read as transmit and receive path) and diversity receive antenna (17) (read as receive-only path). The examiner is equating the measuring of the VSWR to the receive sensitivity since VSWR or Voltage Standing Wave Ratio is a measure of how effective a transmitter and receiver is at the point of transmission and reception. In addition, Rees et al. disclose a base station with a diagnostic subsystem (read as receive sensitivity measuring device) comprises:

- A transmitter (11) (read as first transmitter) for receiving a signal through coupling with the transmit/receive antenna (202) (read as transmit and receive path) and transmits the signal to the controller (20 and 31) (read as terminal; see figures 1 and 5).
- A test transceiver (32) (read as second transmitter; see page 4, lines 15 - 18; figures 1 and 5) for receiving a signal through coupling with the diversity receive antenna (17) (read as receive-only path) and transmits the signal to the controller (20 and 31) (read as terminal; see figures 1 and 5).

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- A diversity receiver (13) (read as first receiver; see figure 5) for receiving a test call (read as test signal; see page 4, line 38 - page 5, line 1) from the controller (20 and 31) (read as terminal; see page 4, line 38 - page 5, line 1; figures 1 and 5) and transmitting the test call (read as test signal; see page 4, line 38 - page 5, line 1) initiated at the controller (20 and 31) (read as terminal) through coupling with the transmit/receive antenna (202) (read as transmit and receive path; see figure 5).
- A receiver (12) (read as second receiver; see figures 1 and 5) for receiving through coupling with the controller (20 and 31) (read as terminal) a test call (read as test signal; see page 4, line 38 - page 5, line 1; page 5, lines 13 - 18) and transmitting the test call (read as test signal; see page 4, line 38 - page 5, line 1) through coupling with the diversity receive antenna (17) (read receive-only path; figure 1 and 5).
- A switch (25) (read as signal selector; figure 1) for selecting receiver (12) or diversity receiver (13) and as a consequence the receivers are selectively connected to the receive antenna (16) (read as receive sensitivity measuring path; figure 1) and also coupled to the controller (21 and 30) (read as terminal; figure 1).
- A combiner (24) (see figure 1) coupled to transmitter (11), test transceiver (32), diversity receiver (13), and receiver (12) (collectively read as first and second transmitters and first and second receivers, respectively) for combining RF signals (read as plurality of input signals; see figure 1; and page 4, line 20) into a

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single signal line (23) (see figure 1) and transmitting to the controller (20 and 31) (read as terminal) by way of coupling. In addition, the controller (20) (read as terminal) transmits test call (read as test signal; see page 4, line 38 - page 5, line 1) through transmitter (11) to the receive antenna (16) (read as receive sensitivity measuring path) so that the VSWR (read as receive sensitivity; see page 5 lines 1 - 12) can be measured using the test call (read as test signal). In the measurement of any kind of system it is inherent to account for cable loss depending on the length and type of cable and therefore the final result should reflect such a loss in the interest of precision.

Consider **claim 2** as applied to claim 1, Rees et al. disclose a controller (20) to transmit a test call (read as test signal; see page 4, line 38 - page 5, line 1) to receive antenna (16) (read as receive sensitivity measuring path; page 5, lines 5 - 10).

Consider **claims 3 and 13** as applied to **claims 1 and 10** respectively (method claim rejected by way of device claim), Rees et al. disclose that tests can be carried out at different signal levels and also RBDS (21) has the functionality to select an appropriate test level signal (read as the terminal transmits the lowest receive level signal to the receive sensitivity measuring path, the lowest receive level signal being acceptable to the receive sensitivity measuring path; see page 6, lines 11 -12; page 7, lines 31 - 38; and page 8, lines 1 -2).

Consider **claim 5** as applied to claim 1, Rees et al. disclose a coupler (201) coupled to a transmit/receive antenna (202) (read as antenna and transmit and receive path) and also a coupler (19) coupled to the diversity receive antenna (17) (read as

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antenna and receive-only path) so as to communicate with transmitter (11) (read as first transmitter; figure 1 and 5), test transceiver (32) (read as second transmitter; figure 1 and 5), diversity receiver (13) (read as first receiver; figure 1 and 5), and receiver (12) (read as second receiver; figure 1 and 5).

Consider **claims 6 and 11** as applied to claims 1 and 10 respectively (method claim rejected by way of system claim), Rees et al. disclose that in order to test (read as measure) the receiver (12) (read as second receiver) coupled to the diversity receive antenna (17) (read as receive-only path), the control circuitry (20) (read as terminal) transmits a test call (read as communication between first transmitter and second receiver; see page 4, lines 36 - 38 and page 5, lines 1 - 27) through transmitter (11) (read as first transmitter) which is coupled to the transmit/receive antenna (202) (read as transmit and receive path; figure 3) and is received by the receiver (12) (read as second receiver; see page 4, lines 36 - 38 and page 5, lines 1 - 27).

Consider **claim 7** as applied to claim 1, Rees et al. disclose the RBDS (21) which comprises a control circuitry (31) (read as terminal; see figure 1) that transmits an access burst on the random access control channel in order to communicate and then the RBDS (21) which comprises the control circuitry (31) (read as terminal) switches over to the reserved channel in order to communicate, indicating that the control circuitry (31) (read as terminal) can communicate with at least two different frequency and can transmit a test call through transmitter (11) (read as the terminal is established with a plurality of frequencies, and is allowed to transmit the test signal; see page 4, line 38 - page 5, line 1; page 5, lines 36 - 38; page 6, lines 1 - 6).

Consider **claim 8** as applied to claim 1, Rees et al. disclose multiple switches (25 and 26; see figure 1) for performing switching operation according to a user selection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rees et al. (UK Patent Application # 2,272,604)** in view of **Starks et al. (U.S. Application # 005/0181781)**.

Consider **claim 4** as applied to claim 1, Rees et al. fail to disclose the terminal is attachable to and removable from the receive sensitivity measuring device.

In the related field of endeavor, Starks et al. disclose a measurement device (120) (read as receive sensitivity measuring device; see [0015] and figure 1b) that comprises a measurement signal processing device (124) (read as terminal) that is detachable (read as attachable to and removable from) from the measurement device (120) (read as receive sensitivity measuring device; see figure 1b and [0015]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate the teachings of Starks et al. with that of Rees et al. in order to provide freedom to attach different types of terminals to the sensitivity measuring device.

Consider **claims 9 and 14** as applied to claims 1 and 10 respectively (method claim rejected by way of device claim), Rees et al. fail to disclose a timer for automatically turning off the receive sensitivity measuring device when the terminal transmits the test signal and a predetermined time has passed.

The Examiner takes Official Notice that it is notoriously well known in the art of wireless communication to implement a power save or sleep mode function in any device.

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Therefore it would have been obvious to a person of ordinary skill in the art to implement a timer for automatically turning off the receive sensitivity measuring device due to preset period of inactivity in order provide power efficiency and prolong battery life.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Rees et al. (UK Patent Application # 2,272,604)** as applied to claims 1 and 10 above, and further in view of **Donovan (IMPS - Instant Messaging and Presence Using SIP. Fall VON Developers' Conference, Sep. 13, 2000, www.dynamicsoft.com).**

Consider **claim 12** in view of claim 10, Rees et al. fail to disclose a method comprising: checking that the terminal of the measuring device has transmitted the test signal and the receive sensitivity measuring path has received the corresponding test signal, and turning off the measuring device.

In the related field of endeavor, Donovan disclose a method in the Session Initiation Protocol or SIP where Alice (read as terminal) sends a subscribe message (read as test signal) and the proxy server (read as receive sensitivity measuring path) after receiving sends back an accepted message (see pg. 6).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to slightly modify the teachings of Rees et al. with that of Donovan et al. in order to implement a well known method for reliable communication.

Rees et al. fail to disclose turning off the measuring device.

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The Examiner takes Official Notice that it is notoriously well known in the art of wireless communication to turn off an electronic device after intended use.

Therefore it would have been obvious to a person of ordinary skill in the art to turn off the sensitivity device to ensure power consumption.

Conclusion

8. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

9. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Fayyaz Alam whose telephone number is (571) 270-1101. The Examiner can normally be reached on Monday-Friday from 7:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571) 272-7915. The fax phone

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number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Fayyaz Alam

July 10, 2006

EDAN ORGAD
PATENT EXAMINER/TELECOMM.

Edan Orgad 7/19/06